

We Claim:

- 5 1. A method for detecting species-specific nucleic acid, comprising:
 - a) providing
 - i) a sample selected from the group consisting of a first cell sample
from a first species and a cell product derived from said first cell sample, wherein
said sample has had previous exposure to second cells from a second species or a
10 cell product derived from said second cells;
 - ii) first nucleic acid probes specific for nucleic acid derived from said
second species;
 - b) exposing said sample to said first nucleic acid probes under conditions
such that said first nucleic acid probes hybridize to said nucleic acid derived from said
15 second species and do not hybridize to nucleic acid from said first cell sample, thereby
facilitating the detection of said nucleic acid derived from said second species.
- 20 2. The method of claim 1, wherein said first nucleic acid probes are specific for a
repetitive element of nucleic acid derived from said second species.
3. The method of claim 2, wherein said repetitive element is present in at least 20
copies.
4. The method of claim 1, wherein said first cell sample is selected from the group
25 consisting of a human cell sample and a non-human cell sample.
5. The method of claim 1, wherein said second cell sample is selected from the
group consisting of a rat cell sample, a mouse cell sample, and a porcine cell sample.
- 30 6. The method of claim 1, wherein said exposing comprises PCR.

7. The method of claim 6, wherein said nucleic acid probes are PCR primers.
8. The method of claim 1, further comprising the step of exposing said sample to second nucleic acid probes, wherein said second nucleic acid probes are specific for
5 nucleic acid derived from said first cell sample.
9. The method of claim 8, wherein said first nucleic acid probes and said second nucleic acid probes are PCR primers, and wherein said exposing comprises PCR, and wherein said PCR is a multiplex PCR reaction.
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10. The method of claim 1, wherein said first nucleic acid probes are selected from the group consisting of SEQ ID NOs: 1, 2, and 5-26
11. The method of claim 8, wherein said second nucleic acid probes are selected from
15 the group consisting of SEQ ID NOs: 3 and 4.
12. The method of claim 1, wherein said sample is a cultured human skin tissue.
13. The method of claim 11, wherein said cultured human skin tissue comprises
20 keratinocytes selected from the group consisting of primary keratinocytes and immortalized keratinocytes.
14. The method of Claim 13, wherein said immortalized keratinocytes are NIKS cells.
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15. The method of claim 1, wherein said first cell sample comprises stem cells.
16. The method of claim 1, wherein said second cell sample comprises feeder cells.
17. The method of claim 16, wherein said feeder cells are mouse fibroblast cells.

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18. A kit for analyzing a first cell sample from a first species or a cell product derived from said first cell sample, wherein said sample has had previous exposure to cells from a second species or a cell product derived from said cells of said second species comprising:
- 5 a) a container containing first nucleic acid probes specific for nucleic acid derived from said first species;
- b) a container containing second nucleic acid probes specific for nucleic acid derived from said second species; and
- c) instructions for using said first and second nucleic acid probes for
- 10 determining the presence or absence of nucleic acid from said second species in said first cell sample.
19. The kit of claim 18, wherein said second nucleic acid probes are specific for a repetitive element of nucleic acid derived from said second species.
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20. The kit of claim 19, wherein said repetitive element is present in at least 20 copies.
21. The kit of claim 18, wherein said first cell sample is selected from the group
- 20 consisting of a human cell sample, a non-human cell sample, and a mouse cell sample.
22. The kit of claim 18, wherein said first and second nucleic acid probes are PCR primers.
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23. The kit of claim 19, wherein said second cell sample comprises feeder cells.
24. The kit of claim 23, wherein said feeder cells are mouse fibroblast cells.
25. The kit of claim 18, wherein said second nucleic acid probes are selected from the
- 30 group consisting of SEQ ID NOs: 1, 2, and 5-26.

26. The kit of claim 18, wherein said first nucleic acid probes are selected from the group consisting of SEQ ID NOs: 3 and 4.
27. A method for detecting species-specific nucleic acid, comprising:
- 5 a) providing
- i) a sample selected from the group consisting of a first cell sample from a first species and a cell product derived from said first cell sample, wherein said sample has had previous exposure to a feeder layer derived from a second species;
- 10 ii) first nucleic acid probes specific for nucleic acid derived from said feeder layer from said second species, wherein said first nucleic acid probes are selected from the group consisting of SEQ ID NOs: 1, 2, and 5-26; and
- b) exposing said sample to said first nucleic acid probes under conditions such that said first nucleic acid probes hybridize to said nucleic acid derived from said
- 15 feeder layer and do not hybridize to nucleic acid derived from said sample, thereby facilitating the specific detection of said nucleic acid derived from said second species.
28. The method of claim 27, wherein said nucleic acid probes are specific for a repetitive element of nucleic acid derived from said second species.
- 20 29. The method of claim 28, wherein said repetitive element is present in at least 20 copies.
30. The method of claim 27, wherein said first cell sample is selected from the group consisting of a human cell sample, a non-human cell sample, and a mouse cell sample.
- 25 31. The method of claim 27, wherein said feeder layer is a mouse cell feeder layer.
32. The method of claim 27, wherein said exposing comprises PCR.
- 30 33. The method of claim 32, wherein said nucleic acid probes are PCR primers.

34. The method of claim 27, further comprising the step of exposing said sample to second nucleic acid probes, wherein said second nucleic acid probes are specific for nucleic acid derived from said sample.

35. The method of claim 34, wherein said nucleic acid probes and said second nucleic acid probes are PCR primers, and wherein said exposing comprises PCR, and wherein said PCR is a multiplex PCR reaction.

36. The method of Claim 34, wherein said second nucleic acid probes are selected from the group consisting of SEQ ID NOs: 3 and 4.

37. The method of claim 27, wherein said sample is a cultured human skin tissue.

38. The method of claim 37, wherein said cultured human skin tissue comprises NIKS cells.